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Impact of New American Thoracic Society Diagnostic Criteria on Management of Nontuberculous Mycobacterial Infection

To the Editor:

The American Thoracic Society has recently published new diagnostic criteria for nontuberculous mycobacterial (NTM) diseases (1). We retrospectively assessed the impact of the new criteria on clinical practice by reviewing medical files of all patients in whom *Mycobacterium chelonae*, *M. abscessus*, *M. simiae*, or *M. szulgai* were isolated between January 1999 and January 2005 in The Netherlands. Isolates were earlier identified at the National Mycobacteria Reference Laboratory (RIVM), by either reverse line blot assay (InnoLipa Mycobacteria v2; Innogenetics, Ghent, Belgium) or 16S gene sequencing, or by a self-sufficient hospital laboratory. Approximately 7.7% (9/117) more pulmonary patients met the 2007 diagnostic criteria (1) than the 1997 criteria (2), although this differed by NTM species (Table 1).

TABLE 1. FULFILLMENT OF THE DIAGNOSTIC CRITERIA, BY SPECIES AND SITE

Species	Site	n	Age (*yr*)	1997 ATS+, n (%)	2007 ATS+, n (%)
Mycobacterium chelonae	P	35	57	5 (14)	7 (20)
	EP	11	51	8 (73)	7 (64)
M. abscessus	P	39	51	11 (28)	13 (33)
	EP	10	52	9 (90)	9 (90)
M. szulgai	P	15	60	8 (53)	11 (73)
	EP	6	44	6 (100)	5 (83)
M. simiae	P	28	65	6 (21)	8 (29)

Definition of abbreviations: Age = mean age; ATS+ = American Thoracic Society diagnostic criteria met; EP = extrapulmonary isolates; P = pulmonary isolates.

The new diagnostic criteria contain more specific radiological criteria, whereas bacteriological criteria have become more lenient: a single NTM culture from bronchial washing fluid, in a well-defined class of patients, or two positive sputum cultures now suffice to establish the diagnosis. As more patients are likely to meet the new criteria, more patients might receive antimycobacterial treatment. The authors, however, repeatedly state that meeting these criteria does not, *per se*, necessitate the institution of therapy (1). This was not emphasized in the former statement. We believe such comments only add to the confusion for the clinician. Which factors should influence this treatment decision in individual patients? Ten years of experience with the former criteria apparently have not provided the answer to that question. More lenient criteria even increase the responsibility of physicians in the treatment decision.

Increased exposure to antimycobacterial drugs can harm patients, both in terms of adverse events and cost (3). The variable cure rates achievable per type of NTM disease and persistence of the conditions predisposing to NTM infection further complicate the assessment of the benefit of treatment. Centralization of expertise and easily accessible expert consultation are important, as acknowledged in the new statement. For extrapulmonary NTM isolates, no criteria for additional proof of infection are mentioned in the summarized criteria, contrary to the prior statement (2). This complicates assessment of the significance of NTM isolated from pleural fluid, stool, or gastric juice, without a context of disseminated disease, and in the HIV-negative patient, without histological proof of infection (Table 1). More research is needed to improve diagnosis and treatment of this increasing problem in clinical practice.

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